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AUTHOR Odell, Kerry S.
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ABSTRACT

This paper examines rural high school students' educational and occupational expectations and their relationships to personal, educational, school, and family characteristics. Questionnaires were distributed to all 10th and 12th graders in four small rural high schools in diverse geographic regions of Ohio. Almost all of the 491 respondents were white. Over 75% were enrolled in academic or general high school programs and had grade averages higher than "C." The socioeconomic status of most families was low, most mothers were not employed outside of the home, and most parents had not gone to college. However, parents had educational expectations for the educational attainment of their children far exceeding their own attainment. Parent educational expectations had a profound influence on students plans for higher education. Students had occupational expectations much higher than their parents' occupational status, and had somewhat unrealistic expectations about their incomes in the first year of employment. Students in academic and general programs and those of high academic ability had higher educational and occupational expectations than students in vocational programs and those of low academic ability. College and employment plans were generally sex stereotypic. School characteristics were not related to student expectations. This paper contains 16 references and 6 statistical tables. (SV)

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THE EDUCATIONAL AND OCCUPATIONAL EXPECTATIONS OF RURAL OHIO TENTH- AND TWELFTH-GRADE STUDENTS

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Kerry S. Odell
Assistant Professor
Division of Resource Management
Agricultural Education
West Virginia University

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Introduction

Education in the United States, provided in large part by rural schools, has furnished the social, academic, technological and economic foundations that have allowed this country to prosper. "As late as 1913, one-half of the school children in the United States were enrolled in the country's 212,000 one-room schools" (Gulliford, 1984, p. 35). Current enrollments in rural high schools exceed 4.4 million children (National Center for Education Statistics, 1981). These children represent approximately 30 percent of all students in high school. Ohio, like most other states, has its share of rural schools. These rural schools are widely distributed throughout the state and offer a variety of educational programs to the many rural Ohio students they serve.

The attitudes, aspirations and accomplishments of rural students have recently received a great deal of research attention. This attention has sparked much controversy over the academic preparation (Sher & Rosenfeld, 1977; O'Neal & Beckner, 1981; Carmichael, 1982) of rural students, their educational and occupational expectations (Harrison, 1969; Lee, 1984) and the relationship of family characteristics (Blau & Duncan, 19678; DeBoard, Griffin, & Clark, 1977) to these measures of educational and occupational awareness.

Students develop educational and occupational plans that build upon their background of experiences. The life experiences of secondary students have been determined in part by the families of which they are members, the communities in which they live, and the schools that they attend. These life experiences manifest themselves in the educational and occupational expectations of students. The family has been shown to play an important role in the development of the youth. Yang (1981) reported that the decision of rural youth to enter college was strongly influenced by the expectations of their parents. Lee (1984) advised that "parents, regardless of their racial background, need to be fully aware of their influence on the aspirations and expectations of young men and women" (p. 33).

The educational and occupational expectations of rural students may be a reflection of the diversity, or lack of it, in the educational programs offered by rural schools. Schwarzweller (1960) concluded that rural schools directly influenced the occupational plans of rural students. Rural students desiring educational and occupational opportunities not prevalent in rural areas or promoted through rural school curricula, find themselves at a distinct disadvantage in the competitive world of today.

Purposes and Objectives

The purpose of the study was to identify the extent to which relationships existed between the educational and occupational expectations of rural Ohio secondary school students and their personal, educational and family characteristics as well as the characteristics of the rural Ohio

RC017457

schools that they attended. The following research questions were developed to guide this study:

1. What are the personal, education, and family background characteristics of rural Ohio high school students?
2. What are the educational and occupational expectations of rural Ohio high school students?
3. What are the characteristics of the rural Ohio high schools being attended by the students studied?
4. What relationships exist between the personal, education, and family background characteristics of rural Ohio high school students and their educational and occupational expectations?
5. What relationships exist between the characteristics of rural Ohio schools and the educational and occupational expectations of the high school students that attend them?

Procedures

This study employed descriptive survey research of a comparative nature. This type of research looks "for accurate information about the characteristics of particular subjects (Ss), groups, institutions, or situations or about the frequency with which something occurs" (Van Dalen, 1979, p. 285).

Population and Sample

The absence of a consistent definition of "rural" was evident from the review of literature on rural education. Nobel (1981) pointed out that the lack of a common definition of rural education hindered research efforts directed at this area.

For the purposes of this study a rural public high school in Ohio was one that met the following criteria:

1) Located in a county outside a Standard Metropolitan Statistical Area.
2) Located in a county with a total population under 40,000 people.
3) Offered vocational agriculture as a high school course.
4) Had an average high school enrollment of 500 or fewer students (average high school class size of under 125 students).

Using the Ohio Educational Directory (Ohio Department of Education, 1984), 52 public secondary high schools were identified that met the outlined criteria. These 52 high schools served as the population for the study. The population was geographically stratified into four groups to account for social and economic differences associated with location. One school was randomly selected from each of the four strata for participation in the study. The four selected schools constituted the sample for this study. Data were collected from the observation unit, which consisted of students in grades ten and twelve.

Even though random selection was employed, the small sample size of this study could be considered a limitation to its generalizability. The researcher chose to be liberal in generalizing findings back to rural students in the 52 schools that made up the population because the criteria used in selecting the population resulted in a somewhat homogeneous population, and the stratification process accounted for geographical variations that might have been encountered.

Data Collection

The data were collected during the 1984-85 school year from all tenth- and twelfth-grade students returning signed parental permission forms. This procedure resulted in the collection of data from 498 of the 632 (79 percent) students. Data were collected at each school site using a researcher developed questionnaire. Of the 498 questionnaires in the sample participating, 491 were included in the data sample.

Instrumentation

Data describing the characteristics of rural students and their families were collected using a Student Information Questionnaire (SIQ) and high school student records. The instrument contained a variety of question types, including open ended questions. Content validity of the (SIQ) was established by a panel of experts. The instrument was pilot tested by high school students in a rural high school not included in the sample, to determine suitability and reliability. The test-retest reliability procedure employed resulted in an eight day stability coefficient of .84. The characteristics of rural high schools participating in the study were obtained from the chief school administrator of each school using an Administrator Information Questionnaire (AIQ). Content validity of the AIQ was established by a panel of experts. A reliability coefficient of .96 was obtained, when, selected information from the AIQ was compared to the same data available from the Ohio State Department of Education.

Data Analysis

Descriptive statistics (frequencies, percentages, measures of central tendency, and variability) were used to organize and summarize the data. The occupations expected by rural students were assigned occupational status scores ranging from 0 to 96 using the socioeconomic index developed by Duncan (1961). Relationships between characteristics were described using appropriate correlation coefficients as recommended by Glass and Stanley (1970).

Results

Personal and Educational Characteristics

The mean age of the rural tenth- and twelfth-grade students in this study was 16.7 years. The distribution of males and females was almost normal, with females making up just over 50 percent of the rural students studied. Over 99 percent of the tenth- and twelfth-grade students in the four schools studied were White. Over three-quarters of the students were enrolled in an academic or general high school program. Less that 14 percent of the students reported enrollment in vocational programs. The mean high school grade point average for the rural students studied was 2.64, or nearly a B- average. Three-quarters of the students had a grade point average above C (2.00).

Family Background Characteristics

The socioeconomic status of the occupations held by parents of the tenth-and twelfth-grade students in the study were determined by assigning their reported occupations to Duncan's Socioeconomic Index (SEI) which provided a scale 0 (low status) to 96 (high status) for the measurement of status. The mean status score for the occupations of fathers was 29.65 and 39.25 for mothers. Parental occupations were also assigned to 21 categories using the Standard Occupational Classification Manual (U.S. Department of

Commerce, 1977). Almost 33 percent of the fathers were reported to be mechanics, repairers, material handlers, or laborers. Almost 47 percent of the mothers were homemakers (Table 1). Over 60 percent of the mothers and 52 percent of the fathers were reported to have terminated their formal education after graduation from high school. Sixteen percent of the fathers and almost ten percent of the mothers had not completed high school. Twelve percent of the others and fathers had completed four or more years of formal education beyond high school (Table 2). Three-quarters of the students reported having at least some discussion with their parents relative to their educational plans. Almost 99 percent of the students reported that they thought their parents expected them to complete high school and 50 percent believed their parents expected them to attend college (Table 3).

Educational Expectations

Over 93 percent of the students reported that they would not quit high school. Almost 36 percent of the students said they definitely would attend college. Another 26 percent thought college attendance would be likely (Table 4). Attendance at a four-year college or university was identified by 37.7 percent of the students as the type of institution they would attend for advanced education. Twenty-three percent reported plans to attend a technical school. Engineering was the most frequently (11.8 percent) identified area of planned study while in college. The combined areas of Education, Engineering, Health Science, and Business accounted for almost 40 percent of the planned areas of study (Table 5).

Occupational Expectations

The occupations that the rural tenth- and twelfth-grade students expected to have were coded using the Duncan Socioeconomic Index (SEI) (Duncan, 1961). The mean value of the occupations expected was 54.15. Over 52 percent of the students expected to be employed in occupations with SEI scores of 60 and above. A little over 11 percent of the expected occupations ere executive, administrative or managerial. Eighteen percent of the students expected to work in clerical and service occupations, while less than 15 percent expected to work in construction, extractive, transportation, mechanics, production, or laborer occupations (Table 1). Over 83 percent of the students expected to make less than 25,000 dollars during the first year in their expected occupation. Less than 4 percent expected to make over 35,000 dollars. A majority (59.1 percent) of the rural students indicated that they decided on their present choice of an occupation prior to the eleventh grade. A majority (64.3 percent) of the tenth-grade students had decided in ninth or tenth-grades, while a majority of the twelfth-grade students had decided in the eleventh or twelfth grades.

Rural High School Characteristics

The mean enrollment for grade ten in the four schools studied was 83.5 students. The mean enrollment in grade twelve was 74.5 students. Three of the four schools had 7-12 enrollments in excess of 500 students. One school had a 7-12 enrollment of 230 students. The number of full-time high school teachers in the four schools studied ranged from 18 to 24, with a mean of 20. The mean number of full-time staff was 13.5. The four rural schools reported operating budgets ranging from 1,265,281 dollars to 3,871,280 dollars. The mean value for operating budget was 2,969,781 dollars. The total number of curricular offerings in the four schools ranged from 57 to 88 with a mean of 76.25 course offerings per school.

Relationships

The extent to which relationships existed between the educational and occupational expectations of the rural students and their personal, education and family background characteristics was investigated. The magnitudes of the relationships investigated in this study were described based on the scale delineated by Davis (1971).

The extent of association between the characteristics investigated are shown in Table 6. Gender showed low association with five of the seven measures of educational and occupational expectation. Gender was substantially associated with the area of advanced study in which students expected to study while in college. High school program enrollment showed moderate association with all three expectations for advanced education and with expected occupation. There were moderate relationships between grade point average and college attendance and type. Parental occupations showed low association with all measures of educational expectation as well as with expected occupation. Parental expectations in the form of discussions about education and expectations for college showed low to substantial association with all three measures of expectation for college and for expected occupation. All of the educational and occupational expectations showed negligible association with the characteristics of the rural high schools studied. This can partially be explained by the lack of variability in the characteristics of the schools studied.

Discussion

Conclusions

The following conclusions and implications are based on the interpretation of data presented in this study.

1. Tenth- and twelfth-grade students in the four rural schools were most frequently enrolled in academic or general high school programs. Most of these students expected to attend college upon graduation from high school, and study at a four year college or university. The four rural schools in this study seemed to emphasize preparation for college attendance.

2. The socioeconomic status of most of the families in the four rural areas studied was low. Most of the fathers were employed in semi-skilled and skilled occupations. Most of the mothers were not employed outside the home.

3. Most of the parents of the rural tenth- and twelfth-grade students in this study had not experienced a college education and the educational expectations that parents held for their children were much higher than the educational attainments the parents had actually realized.

4. The status of the occupations that the rural tenth- and twelfth-grade students in this study expected to hold were on the average much higher than the status of the occupations in which their parents were employed.

5. Most students had somewhat unrealistic expectations about the incomes they would receive during their first year in an occupation.

6. Tenth- and twelfth-grade students enrolled in academic and general high school programs were more inclined to plan education beyond high school, and expected occupations with higher status, than were students enrolled in vocational or other high school programs.

7. The rural tenth- and twelfth-grade students in this study expected college study and employment in areas that were sex stereotypic.

8. Rural tenth- and twelfth-grade students of high academic ability were more inclined to plan for college attendance and expect occupations with higher status scores than were students of lower academic ability.

9. The expectations parents held for their children for education beyond high school had a profound influence upon the plans for advanced education and area of advance study.

10. The characteristics of the four rural schools investigated in this study did not have meaningful relationships with the educational expectations and the occupational expectations and aspirations of the tenth-and twelfth-grade students.

Recommendations for the Rural Schools in this Study

1. The rural schools in this study should assess the impact of the educational programs they offer on: (a) the students who participate in them, (b) school economics, and (c) the rural communities they serve. The impact on students should be assessed by conducting follow-up studies of high school graduates relative to advanced education, occupational attainments, income, and location of employment. The impact of high school programs on the economics of the rural school and on the rural community should be assessed by monitoring program costs, occupational placement of graduates, and number of program graduates that reside or work in the community.

2. The rural schools in this study should promote educational opportunities beyond high school for students in vocational and other non-college preparatory programs. Guidance personnel should work with the two-year technical schools to develop programs and relationships that will encourage students to enter these programs.

3. Guidance counselors in the rural schools in this study should provide leadership to teachers and administrators in reducing sex stereotyping. Rural school administrators should provide sex equity inservice to teaching materials. Information about women and men in non-traditional roles should be included in all high school courses.

4. The rural schools in this study should be sure to include parents in the career development of rural students. High school teachers and counselors must make parents aware of the influence they exert on the career development of rural students. Teachers in these rural schools should construct learning situations that take into account the impact of parental expectations.

5. The rural schools in this study should consider the implementation of some type of career education course prior to high school, with at least one, ten week course on occupational awareness during the high school years.

Recommendations for Research Methodology

1. Research using designs and instrumentation that will allow for the development of predictive models should be considered.

2. Although Duncan's Socioeconomic Index has been extensively used to measure occupational status, it over estimates the status of many female occupations, and under estimates some male occupations. The index also lacks

a score for individuals who work in the home as homemakers. Future research in this area should consider the limitations associated with this measure of socioeconomic status and either revise the index or use some other measure of status.

Implications for Agricultural Education

The results of this study have important implications for agricultural education. Although vocational agriculture was taught in all of the schools taking part in this study, only 21 of the 491 students (4.3 percent) expected employment in agriculturally related occupations. The traditional view of rural area has always had an agricultural tint. Rural and agricultural were once very synonymous terms. This study seems to indicate that this view is no longer correct.

Vocational agriculture programs, like the rural schools in this study, need to place greater emphasis on career awareness and planning. This can be accomplished by providing accurate, up-to-date instruction and guidance about agriculture and the diversity of agricultural careers.

Equally important to agricultural educators are the radical changes taking place in rural areas. Teachers of vocational agriculture should be prepared through pre-service and in-service courses, to identify these changes and adjust their programs to the needs of today's communities.

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Table 1

Parental Occupations and the Expected Occupations of the Rural Students Studied

	Father		Mother		Students	
	n	Percent	n	Percent	n	Percent
Executive, Administrative and Managerial Occupations	34	6.9	15	3.1	56	11.2
Engineers and Architects	10	2.0	1	0.2	22	4.5
Natural Scientists	0	0.0	1	0.2	18	3.7
Social Scientists and Teachers	18	3.6	20	4.1	60	12.3
Entertainment Occupations	1	0.2	0	0.0	23	4.7
Health Occupations	1	0.2	15	3.0	46	9.4
Sales, Clerical and Service Occupations	49	10.0	104	21.2	117	23.9
Agriculture and Forestry Occupations	30	6.1	0	0.0	21	4.3
Construction, Transportation and Laboring Occupations	284	58.0	47	9.5	70	14.2
Military	6	1.2	0	0.0	22	4.5
Home Making	0	0.0	230	46.9	3	0.6
Other*	58	11.8	58	11.8	33	6.7
Total	491	100.0	491	100.0	491	100.0

*Included deceased, unemployed, retired and unknown

Table 2

Educational Attainments of the Parents of Tenth- and Twelfth-Grade Students in the Four Rural Schools Studied

Amount of Education	All Students			
	Mother		Father	
	n	Percent	n	Percent
Less than H.S.	47	9.6	80	16.3
High School	297	60.4	258	52.5
Business/Tech.	51	10.4	58	11.8
Jr. College/2 Yr.	27	5.5	20	4.1
4 Yr. College/Univ.	42	8.6	49	10.0
Advanced Degree	18	3.7	12	2.4
No Response	9	1.8	14	2.9
Total	491	100.0	491	100.0

Table 3

Students' Perceptions of Parental Expectations for High School Completion and College Attendance

Expected to Complete or Attend	High School		College	
	n	Percent	n	Percent
Yes	487	99.2	245	49.9
No	1	0.2	136	27.7
Not Sure	2	0.4	108	22.0
No Response	1	0.2	2	0.4
Total	491	100.0	491	100.0

Table 4

Plans for College Attendance by Students in the Four Rural Schools Studied

Attendance Status	Tenth Grade n	Tenth Grade Percent	Twelfth Grade n	Twelfth Grade Percent	All Students n	All Students Percent
Definitely Will Attend	67	27.8	108	43.2	175	35.7
Likely to Attend	71	29.5	57	22.8	128	26.1
Not Sure	48	19.9	47	18.8	95	19.3
Not Likely to Attend	34	14.1	22	8.8	56	11.4
Will Not Attend	19	7.9	15	6.0	34	6.9
No Response	2	0.8	1	0.4	3	0.6
Total	241	100.0	250	100.0	491	100.0

Table 5

Area of Advanced Study Planned by Students in the Four Rural Schools Studied

Area of Study	Tenth Grade n	Tenth Grade Percent	Twelfth Grade n	Twelfth Grade Percent	All Students n	All Students Percent
Agriculture	15	6.2	6	2.4	21	4.3
Art	4	1.7	17	6.8	21	4.3
Sciences	16	6.6	6	2.4	22	4.5
Humanities	6	2.5	2	0.8	8	1.6
Math	9	3.7	8	3.2	17	3.5
Social Science	11	4.6	13	5.2	24	4.9
Education	26	10.9	19	7.6	45	9.2
Engineering	22	9.1	36	14.4	58	11.8
Health Science	20	8.3	20	8.0	40	8.1
Business	13	5.4	35	14.0	48	9.8
Law	7	2.9	1	0.4	8	1.6
Secretarial Science	7	2.9	6	2.4	13	2.6
Electrical Tech.	10	4.1	6	2.4	16	3.3
Computer Science	3	1.2	6	2.4	9	1.8
Auto Mechanics	2	0.8	7	2.8	9	1.8
Accounting	6	2.5	3	1.2	9	1.8
Cosmotology	1	0.4	6	2.4	7	1.4
other	5	2.1	11	4.4	16	3.3
Undecided	8	3.3	8	3.2	16	3.3
Don't Plan to Attend College	36	15.0	32	12.8	68	13.8
No Response	14	5.8	2	0.8	16	3.3
Total	241	100.0	250	100.0	491	100.0

Table 6

Relationships between the Educational and Occupational Expectations and Personal, Educational and Family Background Characteristics

	Educational Expectations				Occupational Expectations		
	Plans to Complete High School	Plans for Advanced Education	Type of Advanced Education Planned	Area of Advanced Study	Occupation Expected	When Occupational Choice Was Made	Expected Income
Age	.04	.07	.01	.09	.07	.41	.06
Gender	.10	.21	.21	.61	.25	.07	.15
Program Enrollment	.15	.33	.33	.37	.35	.02	.04
Grade Point Average	.08	.43	.36	.07	.36	.02	.07
Socioeconomic Status	.01	.19	.17	.06	.17	.05	.06
Occupation							
Father	.18	.21	.19	.24	.23	.02	.13
Mother	.26	.20	.17	.29	.24	.05	.03
Educational Attainments							
Father	.04	.25	.29	.04	.15	.01	.08
Mother	.08	.22	.27	.10	.15	.00	.05
Parental Expectations							
Discussions	.10	.26	.18	.30	.24	.13	.06
For High School	.26	.11	.09	.11	.10	.07	.01
For College	.17	.57	.43	.43	.29	.01	.10

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